Math 229 2020-Sep-4

Today: Lab 2: Graphing

Office Hrs: MoN 5p
TtH 11a
FRI 2p

zoom.us/my/matthewsunderland

Read Lab 3 by Thu 9/10

Complete Lab 1 (blackboard)
by this Sun 9/6 11:59pm

Blackboard Lab redos now turned on, so just redo any labs you want (highest score will count)

email me at:

matthew.sunderland@csi.cuny.edu

Errors in Lab 1 have been fixed (automatically) by Lab Director (Louis Cabrera)

Note for lab2:

When you save your graph output, make sure to save as .png.

Then upload that .png to blackboard problemset as required,

e.g., Lab2 Q14 (Ex5d)

I will be here to answer Qs. until 11:30am (9/4).

I will also be at zoom.us/my/mattsuhdad office hrs at 2pm-3pm today.

Also email me with Qs.

Also can ask Qs about Lab1 or Lab2

Lab 1 due this Sun 9/6
Lab 2 due Sun 9/13.

229-D2 36383

Calculus Computer Lab
Dr Matthew Sunderland

1. Synchronous lecture Friday 10:10–12:05
   https://zoom.us/meeting/register/tJYudO6sqjooHNegsOPYh2HgKUWkXYf7T06G
2. Online problem sets (labs) due Sundays (9 days after each lecture)
   https://bbhosted.cuny.edu
3. Written assignments due some Sundays on
   https://www.gradescope.com course code M8PW4X
4. Reading assignments due each night before lecture
   https://www.perusall.com course code SUNDERLAND-GK4L9
5. MATLAB is required. Go to https://www.mathworks.com/login?form_type=tah_portal&uri=https%3A%2F%2Fwww.mathworks.com%2Flicensecenter%2Ftotal_headcount%2F14317-60551-55097-39870-91449%3Fs_tid%3Dtah_po_start_cuny click "No account? Create one!" and use your CSI email
6. Office hours [as of 8/3] Mon 5p–6p, Thu 11a–12p, Fri 2p–3p
   https://zoom.us/my/mattsunderland
7. Announcements, Lecture Recordings, and Grades posted on
   https://bbhosted.cuny.edu
8. Platform for administering exams TBD,
   possibly Blackboard, Gradescope, WeBWorK, Respondus, or Proctortrack

Day 1 Homework

1. Download Zoom and create free account
2. Do Online Problem Set 1 (Lab 1) by Sunday 9/6
3. Submit Written Assignment 1 by Sunday 8/30—see last two pages of syllabus
4. Do first reading assignment (Lab 2) and make 1 comment by Thursday 9/3
5. Download and install MATLAB on your computer.
6. Do office hour survey https://forms.gle/RRf74atLQkR3kg5DA

always due the Sunday after the lecture

Course Grade = Average of
- Coursework
  1. Lecture participation — Zoom
  2. Online problem sets — Blackboard
  3. Written assignments — Gradescope
  4. Reading assignments — Perusall
- Exam 1 (I'll tell you less often)
- Exam 2
- Final

always 1 week due day before lecture

Lecture Recording Statement *Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.*

Deadlines Add 9/1 Drop 9/15 Withdraw 11/6

- `plot(x,y)` – plot the two lists of numbers

Review: graphing "by hand" (by plotting points)

2 Graphing with MATLAB

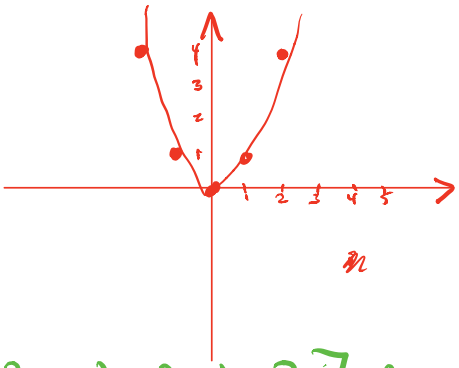
Think back to how you first learned to graph a function or an equation. What would you do if you wanted to plot a graph of the parabola $y = x^2$ over the interval $-2 \leq x \leq 2$? We could choose a set of x values, say, $x = -2, -1, 0, 1, 2$, then square each x value to determine the corresponding y value ($y = 4, 1, 0, 1, 4$). These might be displayed together, as in the following table:

x	-2	-1	0	1	2
y	4	1	0	1	4

We would then mark each corresponding (x, y) pair as a point on a Cartesian coordinate system, and connect the points with straight lines.

By hand

x	$y = x^2$
-2	4
-1	1
0	0
1	1
2	4



By computer

```
x = [-2, -1, 0, 1, 2];
y = x.^2;
plot(x,y)
```

```
x = linspace(-2, 2);
```

gives us a list of a bunch of evenly spaced points from -2, 2

```
y = x.^2;
plot(x,y)
```